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ABSTRACT

A study determined the effectiveness of two computer-assisted programs for writing/language instruction. Three first-grade classes and three second-grade classes at each of five Charlotte-Mecklenburg schools (CMS) were selected for the study. Two schools were using Write to Read for the first time, two schools were using Acceleration Station 2000 for the first time, and one school used no special intervention. Data included teacher descriptions of their instructional programs, perceptions of teachers on the strengths and weaknesses of each program, and achievement in writing for students in different programs. Results indicated that neither type of assessment (teacher ratings and Area Writing Instructor ratings) consistently showed statistically significant differences in achievement based on program. Recommendations are that the Charlotte-Mecklenburg schools: (1) select the most economical writing program; (2) provide adequate training and support in the use of new instructional systems; (3) use consultants provided by companies representing new instructional programs; (4) establish contracts between the CMS Research Office and schools agreeing to participate in evaluations; and (5) monitor the use of the Writing to Read program, since the two schools had very different outcomes even after controlling for differences in their students. (Ten tables of data are included. Summary descriptions of instructional programs, a class profile form, the teacher survey, writing prompts, Area Writing Instructor rating scales for writing prompts, and the teacher assessment instrument for writing prompts are attached.) (RS)

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Evaluation of Computer-Assisted Instruction in Primary
Grade Classrooms at the Charlotte-Mecklenburg Schools

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The Charlotte-Mecklenburg Schools (CMS) and the North Carolina State Department of Public Instruction have made a specific commitment to the development of communication skills of children in the primary grades. This commitment includes early instructional interventions, such as computer assisted instruction. The North Carolina State Department's Standard Course of Study-- Teacher Handbook of Grades K-3 specifies that children at these grade levels "will demonstrate an understanding of computers, their operation, and their possible application to solving relevant problems." Such a concern for the early use of computers, coupled with a desire to improve all basic skills for primary grade students, prompted the Charlotte-Mecklenburg Schools to evaluate the effectiveness of various computer-assisted instructional programs for first and second grade students.

This evaluation, WTR/AS2 91, follows one completed during the 1988-89 school year. The 1988-89 evaluation, An Evaluation of Computer-Assisted Instruction in Charlotte-Mecklenburg Schools by Clark, Ross and Sockwell, 1989, included in its investigation the development of writing skills among students using the regular writing curriculum (REG) and computer-assisted programs with writing/language components. Included among the computer programs were Writing to Read (WTR) and Education Systems Corporation (ESC). The 1989-90 evaluation summarized research on computer-assisted instruction (CAI) and provided the following conclusions:

- Teachers used WTR very differently across CMS schools,
- Non-CAI students' performance equaled that of WTR students in writing and exceeded the writing performance of ESC students. Moreover, students' writing scores were more varied among the WTR schools than scores between WTR, ESC or Non-CAI students,
- Most teachers who used CAI indicated that they were not adequately skilled at integrating computer lab instruction into their regular classroom instruction.

PURPOSE

The primary purpose of the WTR/AS2 91 evaluation was to determine if different computer-assisted programs for writing/language instruction provided during the 1990-91 school year would be associated with different achievement levels in writing for first and second graders. The instructional programs under review were: 1) REG (the regular CMS/NC curriculum), 2) WTR (Writing To Read), 3) AS2 (Acceleration 2000) , and 4) WTR+AS2. All teachers in the study were required by the system to follow the prescribed content of the NC Standard Course of Study ("REG" program). Therefore, WTR and AS2 were considered supplemental to the REG program. (See Appendices for descriptions of the different instructional programs.) Specific questions for the evaluation follow:

1. Do teachers who use WTR, AS2, or the regular curriculum differ significantly in the amount of time they devote to writing and reading instruction?
2. Do teachers who use WTR, AS2 or the regular curriculum differ significantly in their opinions about their level of preparation and support for their program?
3. Do teachers who use WTR or AS2 report technical difficulties that threaten instruction?
4. Do first or second graders differ significantly in their writing achievement based on their instructional program, as measured by teacher-scored repeated writing samples?
5. Do first or second graders differ significantly in their writing achievement based on their instructional program, as measured by area writing instructors (AWI)-scored repeated writing samples?
6. Do teachers and AWIs (Area Writing Instructors) differ in their assessments of first and second graders' writing?

METHODOLOGY

Design

Five CMS elementary schools were selected for participation in this study by central office staffs. Two schools using Writing to Read for the first time, two schools using Acceleration Station 2000 for the first time, and one school where no special intervention was used were selected for comparisons.

Three classes at first grade and three classes at second grade were selected by the principal at each school. Initially, first grade comparisons were to include 1 REG vs 2 WTR vs 2 AS2 classes; second grade comparisons were to include 3 REG vs 2 AS2 classes. However, decisions were made at the school level after the project began to alter the type of instruction planned. A listing of the type of instruction actually provided by each school and class follows:

<u>School:</u>	School 1	School 2	School 3	School 4	School 5
Grade 1 Teacher:	T1 T2 T3	T4 T5 T6	T7 T8 T9	T10 T11 T12	T13 T14 T15
Intervention:	WTR	WTR	Reg.	AS2	WTR+AS2
Grade 2 Teacher:	T16 T17 T18	T19 T20 T21	T22 T23 T24	T25 T26 T27	T28 T29 T30
Intervention:	Reg.	Reg.	Reg.	AS2	Reg.

Ti denotes classroom teacher

Procedures

The major evaluation procedures included the development and use of four instruments for the following types of data collection:

- Teacher descriptions of their instructional program -- "Classroom Profile Sheet,"
- Perceptions of teachers on the strengths and weaknesses of each program -- "Teacher Survey,"
- Achievement in writing for students in different programs -- "Writing Prompts" assessed by AWIs using a focused holistic rating scale and teachers using a primary trait scale.

The *Classroom Profile Sheet* was developed to allow teachers to communicate the goals of their program, the instruction, the population of students, the roles of the teacher and assistant, and the in-service provided up-to-date for the teacher. This information was considered necessary for understanding differences among teachers using the same program, as well as those using different programs. A shuttle system was used to develop the profile: Teachers responded to a questionnaire on their writing and other language instruction: responses were converted into draft profiles; draft profiles were sent to teachers for corrections and additions; then, final profiles were completed during the first half of the 1990-91 school year. The *Classroom Profile Sheet* is located in the Appendices.

A *Writing in the Primary Grades Teacher Survey* was developed to determine teacher concerns about their level of preparation for and skill in teaching writing; and, technical or operational problems encountered while implementing their instructional program. The instrument was based on a survey developed to evaluate WTR (IBM, 1986) and a local survey used in a prior evaluation of CAI programs in CMS (Clark, Ross and Sockwell, 1989). The current instrument, administered at the end of the school year to each of the thirty teachers in the study, appears in the Appendices.

The *Writing Prompts* were developed for this evaluation by the CMS area writing instructors (AWIs) under the direction of the English coordinator and Office of Research staff. AWIs are former classroom who are now employed as full-time writing instructors who have been trained to score the system's writing samples taken from students annually. Teachers administered the prompts under the direction of the Office of Research. Three different prompts were administered and the N C State Department of Public Instruction's 6 Point Scale for Rating Writing Samples was adopted by AWIs to evaluate the samples. Each class was given a writing test in November (early-intervention), February, and May (post-intervention). Teachers assessed the writing sample, using the *Writing in the Primary Grades: Assessment Instrument*. This instrument was based on the NCDPI's *Grades 1 and 2 Assessment Checklist for Communication Skills in Grades One and Two Assessment: Communication Skills and Mathematics*. On the checklist, the State identified areas of development expected for first and second graders. Selected areas from the State instrument were converted to "primary trait" evaluation criteria for the writing samples. At the end of the school year, AWIs and teachers reported their results to the CMS Office of Research. These data allowed comparisons on the quality of student writing, using two different systems of assessment. The writing prompts and scoring instruments -- AWI rating scale and *Writing in the Primary Grades: Assessment Instrument* -- appear in the Appendices.

DATA ANALYSIS AND RESULTS

The results of this evaluation include descriptions of selected (a) conditions under which the study took place, (b) teacher perceptions about conditions and outcomes, and (c) student outcomes associated with different instructional methods. Of particular interest were conditions such as teacher experience, time students spent on reading and time spent on writing in the classroom. Substantial differences in these conditions could account for observed outcomes, rather than qualitative differences in the writing programs. Teacher perceptions were related to training, support for implementing their program, and benefits of their program for students. The student outcome of interest was level of writing skill by the end of the school year.

Conditions

1. *Do teachers who use WTR, AS2, or the regular curriculum differ significantly in the amount of time they devote to writing and reading instruction?*

An analysis of variance (ANOVA) indicated no significant differences in the number of years teachers using different programs had taught. The average teaching experience was 6-10 years. The analysis also showed that teachers spent approximately the same amount of time teaching reading and writing across grade levels and programs. (These data were not tabled for this report.)

Teacher Perceptions

2. *Do teachers who use WTR, AS2 or the regular curriculum differ significantly in their opinions about their level of preparation and the support for their program?*

A series of ANOVA indicated that teachers across programs did not vary significantly in their opinions about the level of support provided for their instructional program. Support was defined as central office or vendor follow-up assistance, whether scheduled or hotline, phone conversation, on-site visit or written materials. Support was generally rated as adequate across all teachers. However, Table 1 shows that teachers in different programs were significantly different in their opinion about the quality of their initial training for the implementation of writing instruction. Teachers in the AS2 program rated their preparation significantly lower than those in the WTR program. A six point scale was used for this part of the instrument: 6=SA (most positive), 5=A, 4=D, 3=SD (least positive), 2=NO (no opinion), 1=NA (not applicable). "No opinion" and "not applicable" responses were excluded from analyses in Table 1.

Table 1
Differences in Teacher Perceptions on Initial Training

<i>Source</i>	<i>DF</i>	<i>Sum of Squares</i>	<i>Mean Square</i>	<i>F-Test</i>
Between Groups	3	183	61	366
Within Groups	26	4	.167	p=.001
Total	29	187		

<i>Group</i>	<i>Count</i>	<i>Mean</i>	<i>Std. Dev.</i>	<i>Comparisons</i>	<i>Sig. Difference</i>
WTR	6	5.5	.548	WTR vs AS2	yes
AS2	6	4.16	.408	WTR vs AS2 +WTR	no
AS2+WTR	3	5	1	AS2 vs AS2+WTR	no

3. *Do teachers who use WTR or AS2 report technical difficulties that threaten instruction?*

A six point scale was used by teachers across programs to rate the overall technical quality of their CAI system. Teachers were asked to agree or disagree with the two survey items listed below. The rating scale was: 6= Strongly Agree, 5= Agree, 4= Disagree, 3=Strongly Disagree, 2=No Opinion, and 1=Question Not Applicable. Teachers across programs agreed that technical difficulties were not a threat to their instruction (See rounded averaged rating of 5 appears below for each program) .

<i>Survey Item</i>	<i>WTR Rating</i>	<i>AS2 Rating</i>	<i>WTR+AS2 Rating</i>
Equipment functioned properly	5.1	5.0	5.3
Technical difficulties resolved quickly	5.1	5.0	5.0

Ancillary results from the survey are provided in Table 2. These results address benefits, problems and uses of the different methods. Items with the term "lab" should be interpreted with caution, since AS2 teachers may have considered their regular classroom as the AS2 lab, rather than the intended "out of the classroom" lab location. Notwithstanding, survey results suggested that students using AS2 were not adequately prepared for the system before its actual use. The late startup may have accounted for teachers rating this item low. Teachers also rated AS2's potential for facilitating learning as low, expressing doubt in whether students were better off with AS2 at this particular time.

Table 2
Mean Teacher Ratings* of CAI by Item

<i>Survey Item</i>	<i>WTR</i>	<i>AS2</i>	<i>WTR+AS2</i>
16. Lab and class instruction overlapped	4.5	4	5
17. System was easy for teacher to learn	5	4	3
18. System was easy for students to learn	6	4.5	6
19. Teacher presence always needed in lab	5	5.5	3
20. Students sufficiently introduced and trained to use the system	5	1	3
21. Classes attended lab on regular basis	5.5	3	6

Table 2 (Cont'd)
Mean Teacher Ratings* of CAI by Item

24.	High time on task was a result of CAI	5	4	6
25.	Students enjoyed learning via CAI	5.5	5	6
26.	CAI facilitated learning	4	3	6
27.	Students better off with this system	5	2.5	6
28.	This system motivates students	5.5	4	6

* The range of teacher responses was 3 (strongly disagree) to 6 (strongly agree)

Writing Achievement and Teacher Assessments

4. *Do selected first or second graders differ significantly in their writing achievement based on their instructional program, as measured by teacher-scored repeated writing samples?*

A covariate (students' first writing test score) was used to control for initial differences in writing skills among students across programs. After adjustments, no statistical differences (at .05) were observed between gains (or losses) made by students in different programs from Test 1 to Test 2. (Data for these results were not tabled for this report.)

Significant differences were observed from Test 2 to Test 3 and from Test 1 to Test 3 for ratings of first grade students' writing. Tables 3 and 4 show how teachers across the five different schools (and programs) differed in their ratings. However, the deviations (from the Grand Mean) listed in the Tables for each program suggest that teachers using the same program by name (Writing To Read) at different schools may have accounted for the greatest differences in ratings across all teachers. That is, WTR students were rated more different (significantly) from one another than they were from students using any other program.

Table 3
Differences From Test 2 to Test 3 for First Grade

Source	Sum of Squares	DF	Mean Square	F	Signif. of F
Covariate AWIScor 1	52.63	1	52.63	1.09	.29
Main Effect School	950.89	4	237.72	4.96	.001
Grand Mean = 1.62					
School	N	Adj. for Covar. Dev'n Beta			
REG	59	.77			
AS2	37	.30			
WTR+AS2	62	-.63			
WTR1	56	2.66			
WTR2	53	-3.14			

Table 4
Differences From Test 1 to Test 3 for First Grade

Source	Sum of Squares	DF	Mean Square	F	Signif. of F
Covariate AWIScor 1	.197	1	.197	.003	.95
Main Effect School	1687.200	4	421.800	6.22	.000

Table 4 (Cont'd)
Differences From Test 1 to Test 3 for First Grade

Grand Mean = 2.91		
School	N	Adj. for Covar. Dev'n Beta
REG	59	2.70
AS2	37	.14
WTR+AS2	62	-2.12
WTR1	56	2.66
WTR2	53	-3.44

Again, after controlling for the initial differences in writing skills, the analysis showed no significant differences in second grade students writing across programs by the end of the year, as rated by teachers. (Data for second grade teacher assessment results were not tabled for this report.)

Writing Achievement and AWI Assessments

5. *Do selected first or second graders differ significantly in their writing achievement based on their instructional program, as measured by area writing instructor (AWI)-scored repeated writing samples?*

The ANCOVA (covariate was the first writing test score) showed no statistical differences for AWIs' ratings for first or second graders based on their having different methods of writing instruction. (Data for AWI assessment results were not tabled for this report.)

Teacher Versus AWI Assessments of Writing

6. *Do teachers and AWIs differ in their assessments of first and second graders' writing?*

Teachers assessed students' writing across seven skill areas. Each skill area received a score of 4 (skill always exhibited), 3 (most of the time), 2 (sometimes), or 1 (not yet). The points across areas were totaled for each student's sample. The highest possible number of points a student could receive on a single paper was twenty-eight. The average performance at each school on this scale was calculated.

Area Writing Instructors scored the same samples, using a six point scale, with 6 being the highest possible score (see Appendices for rating scale). The Mean scores for both sets of assessments across three writing samples appear in Tables 5 and 6. These tables show that all students made progress between the first and last writing sample, regardless of their program. This comparison suggests a general similarity between teacher and AWI ratings of these papers.

Table 5
Teacher and AWI Mean Writing Scores by Program for First Grade

Program/ School	*Teacher Assessment			AWI Assessment		
	First	Second	Third	First	Second	Third
Total Pop.	16	19	21	1.2	1.9	2.5
REG	15	19	23	1.2	1.8	2.7
AS2	16	17	19	1	1.4	2
REG+AS2	17	19	22	1.2	1.4	1.8
WTR1	16	19	23	1.5	2.6	3
WTR2	16	20	19	1.1	2	2.7

*28 was maximum score on teacher assessment; scores were rounded.

Table 6
Teacher and AWI Mean Writing Scores by Program for Second Grade

Program/ School	*Teacher Assessment			AWI Assessment		
	First	Second	Third	First	Second	Third
Total Pop.	18	19	21	2	3	3.6
REG	18	21	23	2	3.3	3.2
AS2	15	17	19	2	2.6	3
REG+AS2	19	20	22	2	2.8	3.6
WTR1	19	21	23	2	2.9	3.9
WTR2	16	17	19	2	3.2	4.1

*28 was maximum score on teacher assessment; these scores were rounded.

Additionally, an analysis of covariance, using the initial rating as a covariate, was done to compare variance in ratings within teacher assessments across all (3) evaluation periods and across all programs. The same analysis was done for AWI assessments. The results, abbreviated in Tables 7 and 8, indicate different rating patterns for teachers and AWIs at the first grade level.

Table 7
Differences in Teacher and AWI Ratings for First Grade Writing Samples

Test Periods	Significant Differences Within	
	Teacher Rating	AWI Rating
Test 1 to Test 2	No	No
Test 2 to Test 3	Yes	No
Test 1 to Test 3	Yes	No

Table 8
Differences in Teacher and AWI Ratings for Second Grade Writing Samples

Test Periods	Significant Differences Within	
	Teacher Rating	AWI Rating
Test 1 to Test 2	No	No
Test 2 to Test 3	No	No
Test 1 to Test 3	No	No

At the first grade level, teacher ratings indicated significant growth in the writing skills of students over time. Using a different scale, AWIs did not indicate a similar growth pattern. At the second grade level, neither teachers nor AWIs indicated significant growth in students' writing abilities.

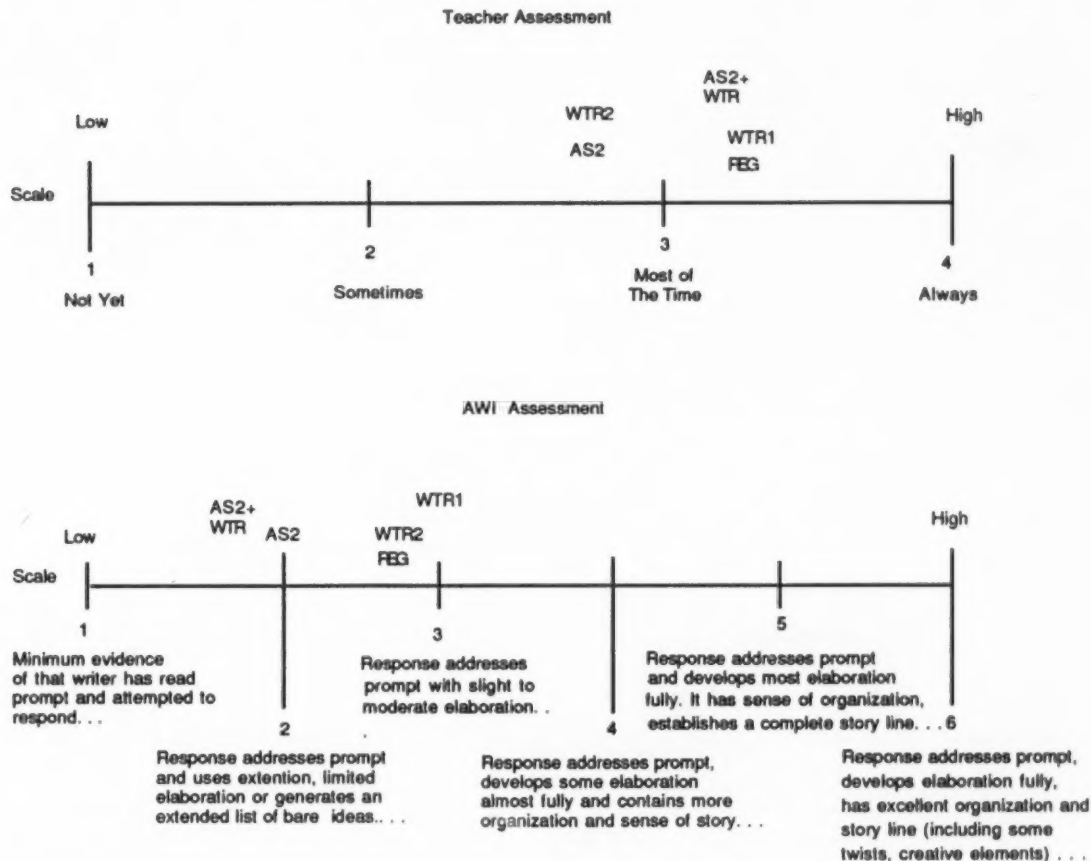
CONCLUSIONS

This evaluation was designed primarily to determine the impact of different instructional programs on first and second graders' development in writing. The evaluation resulted in some broad implications for CMS and other school systems interested in the use of technology for primary grade level instruction.

The final set of writing scores provides baseline scores of what CMS first and second graders can do in the area of writing by the end of the school year. Subsequent evaluations of writing may consider the use of this baseline information in setting "expectations" for writing performance at these grade levels.

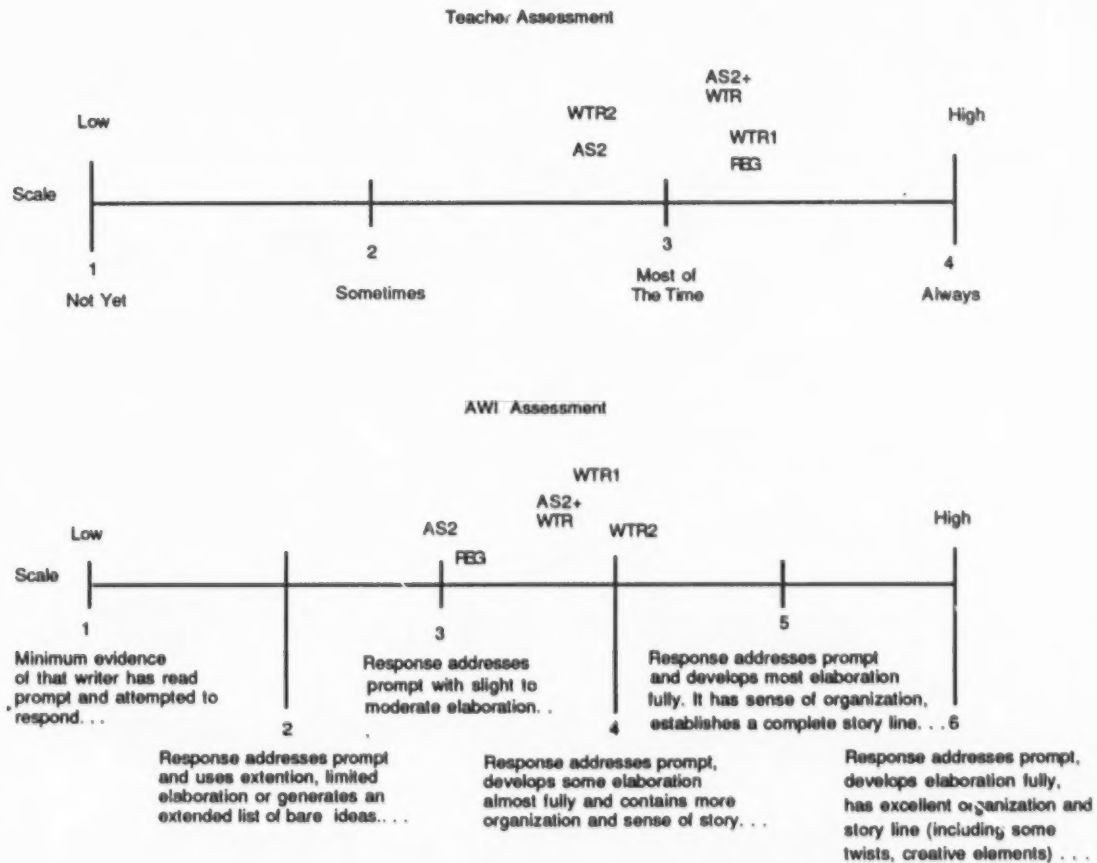
Two types of assessments (ratings) were used for this study: Teacher ratings and AWI ratings. The correlation between the ratings was .45. Although neither source consistently showed statistically significant differences in achievement based on program, the two assessment ratings painted different pictures of how well students wrote at the end of the school year on their final writing sample. Teacher assessments focused on specific skills (primary traits); AWI assessments focused on the overall quality of writing (focused holistic view). Table 9 shows that when primary traits were the focus of first grade teachers, most students came close to meeting teacher expectations "most of the time" at the end of the year. However, when the same papers were judged by the AWIs, students' achievement did not appear as high. AWIs rated most first grade students "below" the mid-point for achievement by the end of the year on the equal interval holistic scale. That students' overall ability to write was judged differently on two different but popular assessment methods may demonstrate that judgments can be as influenced by the selected method of assessment as by students' actual writing abilities.

Table 9
Distribution of Final First Grade
Writing Scores



Lastly, Table 10 shows that when primary traits were the focus, second grade students, like first graders, came close to meeting teacher expectations "most of the time" on the writing samples. AWIs agreed more with second grade teachers than with first grade teachers: AWIs indicated that the second graders were at or above the mid-point range of writing abilities by the end of the school year. Together, Tables 9 and 10 suggest the importance of a clear and accepted definition of *writing ability*. The tables also suggest the need for further study of the impact of assessment instrumentation and methods on judgments about students' ability to write.

Table 10
Distribution of Final Second Grade
Writing Scores



RECOMMENDATIONS

In view of these findings, Charlotte-Mecklenburg Schools should consider the following:

1. Select the most economical writing program (regular curriculum, WTR, AS2 or any combination) for first and second instruction, since the program a child used did not appear to make a significant difference in writing outcomes.
2. Provide adequate training and support in the use of new instructional systems before allowing teacher unsupervised use of the systems in the classroom. "Adequate training and support" may be defined as successful completion of a "teacher preparation checklist," which describes the teacher's level of readiness for using a new instructional system.
3. Use consultants provided by companies representing new instructional programs to develop school and classroom level lesson plans, as well as for assistance with operating hardware.
4. Establish contracts between the CMS Research Office and schools agreeing to participate in evaluations. Contracts should outline responsibilities and conditions of forfeitures, such that compliance to agreements and adherence to evaluation designs are the norm rather than the exception.
5. Monitor the use of the WTR program at the two schools in the study, since these schools had very different outcomes even after controlling for differences in their students.

REFERENCES

- Clark, T., Ross, G., and Sockwell, R. An Evaluation of Computer-Assisted Instruction in Charlotte-Mecklenburg Schools. Charlotte, North Carolina, 1989.
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- Writing to Read Evaluation Guidelines. Atlanta: International Business Machine Corporation (IBM), 1986.

APPENDICES

**Summary Descriptions of
Instructional Programs**

Summary Descriptions of Instructional Programs
Used for the WTR/AS2 91 Evaluation

Acceleration Station 2000 (AS2)

The Acceleration 2000 classrooms combined strategies that provided for children's optimum learning and encouraged thinking processes for application. Children were taught thinking skill in context and conjunction with familiar skills (e.g., writing). Children engaged in cooperative learning, which encouraged them to work together and help each other toward common academic and social goals. Teachers typically provided initial teaching of concepts; then, cooperative groups of students reinforced the teaching through discussion, writing, and encouraging one another so that everyone in the group participated and understood.

In association with AS2, teachers used a variety of optional curriculum modules (stations), including one called the "Communication Station." The Communication Station allowed teachers to combine strategies, information, and resources to enhance and accelerate group instruction and information access. By using a large television monitor for display, research information was accessed as a group activity. One curriculum option within this station, "Expressions," provided students with repeated opportunities to express their thoughts, feelings, and fantasies in oral and written language, drawing, painting, and drama. The program was designed for primary grade students, and integrated the development of speaking, reading, and writing skills through a variety of "Big Books" and stories on laser disc. (Education Management Groups-EMG)

Writing to Read (WTR)

Writing to Read is a computer-based instructional system designed to develop the writing and reading skills of kindergarten and first grade children. The philosophy of the system is that children can write anything they can say. In the program students learned to:

- use the alphabetic principle which lets them write anything they can say
- use a consistent phonemic spelling system
- use the computer which act as a guide and tutor
- discover the joy of language
- develop their ability to express their ideas and manipulate the English language
- use a typewriter

Teachers used different approaches to the WTR learning center, a room or lab with sufficient space for students to move freely from one station to the next. The WTR stations consisted of a) the computer station, b) the writing/typing station, c) the work journal station, d) the listening library station, e) the multi-sensory station, and f) the make word station. At these stations, students used a variety of equipment and language arts materials, such as a computer, a set of instructional and game diskettes, an electric typewriter, a cassette tape player, and various sensory materials, at different times daily.

Regular Communications Curriculum (REG)

Teachers using the regular curriculum are given great flexibility in teaching communication skills by the CMS and NC curriculum guides. Some common procedures or strategies reported by teachers included various combinations of whole language and language experience strategies. Teachers also commonly, reported the use of student journals done independently each morning. Teachers read the journal entries and made written and/or oral comments to students. Teachers in the regular classroom reported using language experience stories as a whole group activity, where the teacher or assistant wrote a story on the board as children dictated and copied the story at their desks. Teachers also reported monitoring students as they copied poems and stories from books and other resources on a daily basis.

Teachers in CMS are encouraged to use the writing process at all grade levels, including pre-writing, writing, editing, and publishing. Associated with this process during the evaluation was the use of invented and conventional spelling strategies and manipulatives to stimulate student interest.

Class Profile Form

Charlotte-Mecklenburg Schools
Writing in the Primary Grades
Classroom Profile Sheet

The purpose of the profile sheet is to describe in detail the full range of writing instruction provided to students in primary classes at your school. The descriptions you provide will be included in an evaluation report on "the effects of different types of instruction on student writing." This sheet should be completed by selected kindergarten, first and second grade teachers. It is assumed that these teachers use identifiable models or curriculum guides for teaching writing. The models of interest are WTR (Writing to Read), REG (regular or system-wide recommended writing instruction), AS2 (Acceleration Station 2000) and COMBO (any combination of WTR, REG and AS2). These models are referred on this sheet as "interventions" for teaching writing. Please complete the entire profile sheet with as much detail as possible.

School:

Date:

Teacher:

Grade Level:

Please check the writing program(s) that has been provided for your class this year:

WTR ____

REG ____

AS2 ____

COMBO ____ (please name the types (models) of instruction that have been combined)

If your school has overall goals/objectives for K ____ 1st ____ 2nd ____ grade level, please describe:
(Check appropriate one(s) and describe goals for your grade level (s))

Startup date for the intervention (day/month WTR, REG, AS2, or COMBO writing instruction started):

(2)

Population description (general makeup of this class -- ability level and socio-economic background):

Intervention description (i.e., major instructional strategies and activities; equipment or other materials used for writing instruction-- manner of use, how often and for what period of time):

lab:

classroom:

(3)

Role of the teacher and teacher assistant in lab/regular classroom during writing instruction (describe the type of assistance provided by each):

lab:

classroom:

Were you involved in inservice for the writing instruction you provided students in this class?

Yes ____

No ____

If yes, please describe--what and when:

(4)

Please explain any additional writing instruction (type, frequency, setting, etc.) experienced by these students this year (of which you may or may not have been a part):

Additional Comments:

Thank you for your time and cooperation!

**Writing in the Primary Grades
Teacher Survey**

Writing in the Primary Grades Teacher Survey

Please fill in the blanks or check the correct/appropriate spaces below.
Numbers in parentheses are for Research Office use only.

1. Your school's name: _____ School number: _____ (1)
2. Check number of years teaching experience, including this year: 1 or less _____ 6-10 years _____
2-5 years _____ 10+ years _____ (2)
3. Circle grade level(s) you teach: K 1 2 3 (3)
4. Circle number of students taught: 1-10 11-20 20-30 30+ (4)
5. Check the program(s) you use to guide reading and/or writing instruction:
WTR _____ AS2 _____ Reg. CMS/State Curriculum _____ (5)
6. Overall, most students in this class, by comparison with my classes over the past three years, are:
(check one below)
below average _____ average _____ above average _____ no opinion _____ (6)
7. Is computer-assisted instruction... (Check one below)
of great importance in the overall reading instruction provided, or _____
of somewhat importance in the overall reading instruction provided, or _____
of minimal importance in the overall reading instruction provided, or _____
not used for reading instruction. _____ (7)
8. [For WTR or AS2 Users] How would you rate your overall knowledge for integrating
WTR or AS2 strategies and your regular classroom READING instruction?
(check one choice) adequate _____
not sure _____
inadequate _____
no integration attempted _____ (8)
9. Is computer-assisted instruction... (Check one below)
of great importance in the overall writing instruction provided, or _____
of somewhat importance in the overall writing instruction provided, or _____
of minimal importance in the overall writing instruction provided, or _____
not used for writing instruction. _____ (9)
10. [For WTR or AS2 Users] How would you rate your overall knowledge for integrating
WTR or AS2 strategies and your regular classroom WRITING instruction?
(check one choice) adequate _____
not sure _____
inadequate _____
no integration attempted _____ (10)
11. On the average day, my class spends between _____ 1 _____ 2 _____ 3 _____ 4 hours (check one) for
reading instruction and/or practice. (12)
- 11a. [WTR or AS2 Users Only] Of these hours, approximately _____ 1 _____ 2 _____ 3 _____ 4 hrs.
are spent daily using the computer for reading instruction and/or practice. (13)
12. On the average day, my class spends between _____ 1 _____ 2 _____ 3 _____ 4 hours (check one) for
writing instruction and practice. (14)
- 12a. [WTR or AS2 Users Only] Of these hours, approximately _____ 1 _____ 2 _____ 3 _____ 4 hrs.
are spent daily using the computer for writing instruction and/or practice. (15)

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Please indicate your opinion about the appropriateness of instruction (strategies, methods, materials) recommended by WTR, AS2, or the regular CMS/NC curriculum for DIFFERENT ABILITY LEVELS. Indicate your OPINION only for the type of instruction you actually use. For each ability level, check the method of instruction you feel is appropriate. You may check all methods under a single ability level, if you feel all methods are appropriate.

13.

ABILITY LEVELS OF STUDENTS

SUBJECT AREAS	Above Average	Average	Below Average
Reading	WTR ____ (16) AS2 ____ (17) REG ____ (18)	WTR ____ (19) AS2 ____ (20) REG ____ (21)	WTR ____ (22) AS2 ____ (23) REG ____ (24)
Writing	WTR ____ (25) AS2 ____ (26) REG ____ (27)	WTR ____ (28) AS2 ____ (29) REG ____ (30)	WTR ____ (31) AS2 ____ (32) REG ____ (33)

Only WTR and AS2 Teachers Respond to Questions 14-28

Please circle the best choice for each statement below. All statements refer to your experience in using the computer lab during the current school year.
Note: 6 = Strongly Agree (SA) 5 = Agree (A) 4 = Disagree (D) 3 = Strongly Disagree (SD) 2 = No Opinion (NO) 1 = Question not applicable (NA).

I am responding to the WTR ____ or the AS2 System _____. (If you use both, choose the one for which you have the strongest opinion.)

	SA	A	D	SD	NO	NA
14. I have received sufficient training to use the computer-based instructional system effectively.	6	5	4	3	2	1
15. Support for follow-up questions related to my CAI system is adequately available.	6	5	4	3	2	1
16. Lab instruction (software) and classroom instruction are designed to overlap and complement each other.	6	5	4	3	2	1
17. This computer-assisted instructional system was easy for me to learn to use correctly.	6	5	4	3	2	1
18. This computer-assisted instructional system was easy for my students to learn to use correctly.	6	5	4	3	2	1
19. My presence is always necessary in the lab when my students are in the lab.	6	5	4	3	2	1
20. My students were sufficiently introduced to and trained in the use of the software and hardware.	6	5	4	3	2	1
21. My class is able to use the computer on a regular schedule.	6	5	4	3	2	1
22. The lab (hardware and related equipment) is usually functioning properly when my class is in attendance.	6	5	4	3	2	1
23. Technical difficulties (problems with the hardware and related equipment) are quickly resolved.	6	5	4	3	2	1
24. High time on task seems to be a direct result of students' use of this computer-based instructional system.	6	5	4	3	2	1
25. Students consistently enjoy learning via computers.	6	5	4	3	2	1
26. This computer-based instructional system (vs the regular curriculum) lessen the difficulty of student learning.	6	5	4	3	2	1
27. Based on past experiences, I believe students are better off using this system for learning than using only the regular curriculum.	6	5	4	3	2	1
28. There seems to be high student motivation to learn when students use this computer-based instructional system.	6	5	4	3	2	1

Additional comments are welcomed! Please attach a separate sheet with any comments.

Thanks for your assistance with this evaluation

Writing Prompts

Writing Prompts for the New CAI (WTR and AS2) Evaluation

**(Developed by Dr. Genie Ball, CMS English Specialist and
CMS area writing instructors (AWIs))**

For Nov. Sample--

"Think about something that you like to do. Write a story that tells about what you like to do and why you like to do it."

For Feb. Sample--

"Think about a happy day you have had. Write a story that tells about what made you happy and why it made you happy."

For May Sample--

"Think about a place where you like to go. Write a story that tells about this place and why you like to go there."

**AWI Rating Scales for
Writing Prompts**

FIRST AND SECOND GRADE
SCORING CRITERIA

- NS = This code may be used for compositions that are entirely illegible or otherwise unscorable: blank responses, responses written in a foreign language, restatements of the prompt, and responses that are off topic, incoherent, and responses that are off topic, incoherent, or unintelligible.
- 1 = There is evidence that the writer has read the prompt and attempted to respond to it. The response may have incoherent passages, disjointed ideas, or be a sparse list of reasons. It may contain short repetitious sentence patterns and may lack organization.
- 2 = The response addresses the prompt and utilizes extension, limited elaboration or generates an extended list of bare ideas. The response may have weak organization, but the writing is generally coherent.
- 3 = The response addresses the prompt with slight to moderate elaboration or it may be an extended list, but several ideas have extension or limited elaboration. The response may have evidence of limited organization (often "and" or "then") or sense of story. The majority of the writing is coherent.
- 4 = The response addresses the prompt, develops some elaboration almost fully and contains more organization or sense of story. The response exhibits reasonable control of language which results in more coherent and varied sentences. The response is more fluent than 3's, but it may lose focus. The response generally contains some specific, vivid vocabulary.
- 5 = The response addresses the prompt and develops most elaboration fully. It has a sense of organization, establishes a complete story line, and contains a strong personal voice. Ideas are clearly expressed using varied sentence structure.
- 6 = The response addresses the prompt, develops elaboration fully, has excellent organization and story line (including some twists, creative elements), and has personal voice clearly defined. The response contains more accurate grammar/mechanics, and spelling is predominantly conventional. Ideas are expressed clearly, fluently, and logically and sentences vary. Minor rather than major flaws occur in organization, development, or focus, and ideas are logically connected.

**Writing in the Primary Grades
Teacher Assessment Instrument
for Writing Prompts**

**Writing in the Primary Grades:
Assessment Instrument**

School: _____ Teacher: _____

Student: _____ Student ID: _____ Grade Level: _____

Directions: Use a single writing sample to evaluate each child's skill level at each assessment point. Please enter the code provided below that you feel most appropriately describes skills at each specified time period. Each writing indicator should receive a rating of either AL, MT, ST or NY. These ratings are explained below and the writing indicators are defined on the back of this sheet. You are encouraged to include pertinent comments.

CONTROL OF WRITING INDICATORS	ASSESSMENT PERIOD*			SECOND ASSESSMENT PERIOD
	First	Second	Third	
Spaces words				
Spells (invented or conventional) words such that they convey meaning				
Writes complete thoughts/ideas				
Ties one thought to another				
Organizes events/ideas in a logical way				
Uses details/descriptors				
Moves from beginning, develops the idea, and concludes				
* Enter the two letter code for each indicator for each assessment period: AL = Always; MT = Most of the time; ST = Sometimes; NY = Not Yet;				
COMMENTS				THIRD ASSESSMENT PERIOD
FIRST ASSESSMENT PERIOD				
				23

Definition of Writing Indicators

Spaces Words	Written words are separated on the page such that their beginnings and endings can be distinguished.
Spells (invented or conventional) words such that they convey meaning	Meaning of words are discernable based upon the way they are spelled, regardless of the system used. (e.g., phonetic or "dictionary"/standard)
Writes complete thoughts/ideas	Nouns (objects, concepts, or ideas) are used with appropriate verbs (action or state of being words) to indicate who, what and/or how within the written sample.
Ties one thought to another	Ideas are connected explicitly through choice of words, phrases, and/or punctuation marks.
Organizes events/ideas in a logical way	Events, occurrences, or feelings are expressed in proper and logical order.
Uses details/descriptors	Initial "kernel" ideas are extended in description through the use of single words (adjectives and adverbs), lists of words, phrases or examples.
Moves from beginning, develops the idea and concludes	Writer designates (by single words, phrases, or punctuation) three distinct points (start, end, or some point in between) in the written sample.